Final
General Management Plan Amendment
Environmental Impact Statement

Dry Tortugas
National Park
Monroe County, Florida

The purpose of this *Final General Management Plan Amendment / Environmental Impact Statement* for Dry Tortugas National Park in Monroe County, Florida, is to set forth the management philosophy and management direction for the park for the next 15 to 20 years. The park has been operating under the *General Management Plan / Development Concept Plan / Environmental Assessment* that was prepared in 1983. Although much of the 1983 plan is still applicable, this older plan does not address several current issues. The 1983 plan needs amending to provide overall guidance for the future use of resources and facilities; to clarify research and resource management needs, priorities, and strategies; and to address changing levels of park visitation and use. This new *General Management Plan Amendment* will replace the 1983 plan. Specific issues to be addressed in this amendment include protection of near-pristine resources such as coral reefs and sea grass beds, the protection of submerged cultural resources, the management direction for commercial services to provide transportation and assistance in educating visitors, and the determination of appropriate levels and types of visitor use. Establishing appropriate levels of visitor use is especially important. In 1984 the park had 18,000 visitors Last year more than 84,000 people visited the park. The first quarter visitation numbers of 2000 are 25% greater than last year. Managers must take actions to deal with visitor safety and enjoyment as well as protect the resources.

This *Final General Management Plan Amendment* presents and analyzes five alternative future directions for management and use of Dry Tortugas National Park and incorporates appropriate changes from the comments on the draft plan. Alternative A, a "no-action" alternative, presents what would happen under a continuation of existing conditions, without a new management plan, and provides a basis for comparing the other alternatives. Alternatives B, C, D, and E (the "action alternatives") considered in this document provide different ways to meet current and future needs, protect park resources, and enhance visitor experience. Alternative B provides greater protection of natural and cultural resources than alternative A. Alternative C, which has been identified as the National Park Service's proposed action/preferred future direction, affords a high level of protection to significant park resources through selectively applying a research natural area zone, instituting a permit system for private boaters, and using commercial services to direct and structure visitor use. Alternative D is the same as alternative C except that the research natural area zone is larger and private boaters would not be allowed in this zone. Alternative E is the same as alternative D except that the research natural area zone would be applied to almost the entire park. The potential consequences and environmental impacts associated with implementing each of the alternatives are evaluated in the "Environmental Consequences" section of this document.

Concurrent with the completion of the *General Management Plan Amendment*, the National Park Service will issue a "Notice of Proposed Rule Making." This will initiate the process of establishing new or revised regulations that are directed by the final plan. Public comments received on the *Draft General Management Plan Amendment* that address topics that will be the subject of rulemaking will also apply to public review of the draft regulations when they are released for public comment.

This *Final General Management Plan Amendment* has been distributed to other agencies and interested individuals. After at least a 30-day no-action period, a "Record of Decision" on the final approved management plan will be issued by the NPS regional director. For further information, contact Superintendent, Everglades and Dry Tortugas National Parks, 40001 State Road 9336, Homestead, FL 33034-6733.

SUMMARY

The Florida Keys are composed of 1,700 keys or islands, all of which are in Monroe County. Dry Tortugas National Park is the westernmost part of the Florida Keys and is about 70 miles west of Key West, Florida, in the Straits of Florida. The park contains seven keys and is administered by the National Park Service. Only two of the keys in the 100-square-mile national park are inhabited. The keys are composed of coral reefs and sand and the surrounding shoals and water. Totaling 104 acres, the islands in the park are situated on the edge of the main shipping channel between the Gulf of Mexico, the western Caribbean, and the Atlantic Ocean. The islands and reefs pose a serious navigation hazard to ships passing through the 75-mile-wide straits between the gulf and the ocean and have been the site of hundreds of shipwrecks, which still occasionally occur in the area. The shipwrecks on the reefs comprise one of the nation's principal ship graveyards.

Fort Jefferson, on Garden Key, is the park's central cultural feature and is the largest 19th century American coastal fort. Construction began on the structure in 1846, but the fort was never completed. Originally built to protect shipping access to the gulf, the fort was used as a military prison during the Civil War. Today, the fort is the primary destination for people visiting the park. Loggerhead Key is the largest key and contains a brick tower lighthouse that was completed in 1858 that is still operable. The lighthouse was manned by Coast Guard personnel until recently when it was turned over to the National Park Service. The remaining keys are Bush, Long, East, Hospital, and Middle. Because they are turtle and bird nesting sites, Hospital and Long Keys are closed to visitors all year; Bush Key is closed part of the year during bird nesting season. Middle Key is a sandbar that is awash in the summer but emerges intermittently at other times of the year. East Key is also a significant turtle nesting area, and is closed during the nesting/hatching period. It contains relatively unaltered natural vegetation.

The Dry Tortugas are recognized for their near-pristine natural resources including sea grass beds, fisheries, and sea turtle and bird nesting habitat. In addition, the tropical coral reef of the Tortugas is one of the best developed on the continent and possesses a full range of Caribbean coral species, some of which are rare elsewhere. These resources play a vital role in South Florida's efforts to attain a balanced and sustainable ecosystem. For example, the park's protected spawning habitat produces larger apex predators (predators at the top of the food chain) and rich biodiversity of species such as reef fish, lobster, and shrimp. Movement and flow of currents in the keys disperse larva to distant areas, resulting in benefits to regional fisheries and therefore to recreational and commercial fishermen and research scientists beyond the park.

Every unit in the national park system is required to operate under a management plan that sets the direction for future management of each specific unit. Dry Tortugas National Park has been operating under the 1983 *General Management Plan / Development Concept Plan / Environmental Assessment* (NPS 1983b). Although much of the 1983 plan still applies, it needs amending to address current issues; to provide overall guidance for the future use of resources and facilities; to clarify research and resource management needs, priorities, and strategies; and to address changing levels of park visitation and use. This new *General Management Plan Amendment* will replace the 1983 plan.

Specific issues to be addressed in this amendment include protection of near-pristine resources such as coral reefs and sea grass beds, the protection of submerged cultural resources, the management direction

of commercial services to provide transportation and assistance in educating visitors, and the determination of appropriate levels and types of visitor use. Visitation at the park has risen from 18,000 visitors in 1984 to 84,000 in 2000. The first quarter visitation numbers of 2000 are already 25% greater than last year.

Five alternative future directions for management and use of Dry Tortugas National Park are analyzed in this plan. Alternative A, a "no-action" alternative, presents what would happen under a continuation of existing conditions, without an amended management plan, and provides a basis for comparing the other alternatives. Alternatives B, C, D, and E (the "action alternatives") considered in this document provide different ways to meet current and future needs, protect park resources, and enhance visitor experience.

Alternative B provides greater protection of the natural and cultural resources than alternative A. Under alternative B the types and levels of visitor use would be managed to protect resources and the quality of the visitor experiences. Where critical resource degradation was observed, park staff would direct intensive protection and/or remediation measures to abate impacts. Visitors would be free to travel and experience a variety of recreational opportunities throughout much of the park.

Alternative C has been identified as the National Park Service's proposed action/ preferred future direction. The intent under alternative C is to afford a high level of protection to significant park resources through the selective application of a research natural area zone in 46% of the park (46 square miles), instituting a permit system for private boaters, and using commercial services to direct and structure visitor use. The research natural area would be dedicated to resource protection, nonmanipulative research, and visitor education. Consumptive use of resources, including fishing, would be prohibited in the research natural area. A wide range of recreational and educational opportunities would be available to visitors provided that appropriate resource conditions were maintained. Visitor experience would be enhanced due to expanded access throughout the park and higher-quality resources to enjoy. The goal for commercial service operations would be to be self-contained, thus reducing the strain on the limited park facilities. The types and levels of visitor use would be managed to protect resources and the quality of the visitor experiences.

The concept under alternative D is exactly the same as alternative C except that (1) the research natural area zone boundaries would be slightly different (still compatible with the Florida Keys National Marine Sanctuary's preferred alternative for establishing ecological reserves in the Tortugas area), and (2) private boaters would not be allowed to anchor or tie up to a mooring buoy for diving, snorkeling, etc. in the research natural area. Private boaters would be allowed to transit through the research natural area.

Under alternative E, most of the park would be designated as a research natural area and managed accordingly, with primary emphasis on resource protection and conservation. The alternative recognizes the paramount importance of preserving the park's near-pristine and fragile ecological resources and takes steps to closely direct visitor activities that could result in resource degradation. Most visitor use would be highly structured through commercial service providers. The goal for commercial service operations would be to be self-contained, thus reducing the strain on the limited park facilities. Private boaters would moor at Garden Key and join tour operations. The types and levels of visitor use would be managed to protect resources and the quality of the visitor experiences.

The potential consequences and environmental impacts associated with implementing each of the alternatives are

evaluated in the "Environmental Consequences" section of this document. The major impacts of implementing alternative A include continued long-term impacts on coral reefs and reef fisheries from unrestricted fishing and recreational uses. Also, increases in use would result in minor to moderate long-term adverse impacts on the quality of the visitor experience.

The major impacts of implementing alternative B would include continued long-term adverse impacts on coral reefs and reef fisheries from unrestricted fishing and recreational uses. Establishing maximum levels, types, and locations of use would have long-term minor beneficial impacts on the quality of the visitor experience.

The major impacts of implementing alternatives C and D would include a significant reduction in the long-term adverse impacts from fishing and recreational uses through the establishment of a research natural area in a portion of the park. Establishing visitor capacities, providing commercial tours throughout the park, improving and protecting the quality of the resources, and enhancing interpretation and education would have long-term major beneficial impacts on the quality of the visitor experience. In alternative C, the establishment of the research natural area in the park and the establishment of the adjacent ecological reserve by the Florida Keys National Marine Sanctuary would set aside a total of about 197 square nautical miles where fishing would not be allowed and the fisheries and other benthic resources could recover from overfishing. When implemented, the combined NPS and FKNMS proposals would establish the third largest no-take marine reserve in the world (according to the National Fisheries Conservation Center).

The major impacts of implementing alternative E would include the elimination of almost all of the long-term adverse impacts from fishing and recreational uses through the establishment of a research natural area throughout most of the park. Visitor use would be highly structured throughout the park. Visitors without private boats would have greater opportunities to tour diverse areas in the park. Establishing visitor capacities, providing commercial tours, improving and protecting the quality of the resources, and enhancing interpretation and education would have long-term major beneficial impacts on the quality of the visitor experience. The restriction against private boat use and recreational fishing in most of the park, and the requirement that these visitors be with a guide, would change the nature of the remote marine experience and sense of freedom now available. This would have long-term moderate negative impacts for those visitors with private boats.

UNDERSTANDING PARK PLANNING

The purpose of these two pages is to explain what you are going to be reading about in this document and why.

Park planning is a decision-making process, and general management planning is the broadest level of decision making for parks. General management plans are required for all units in the national park system and are intended to set the management direction for the park for the next 15 to 20 years. General management planning constitutes the first phase of tiered planning and decision making. It focuses on *why* the park was established (purpose, significance, mission) and *what* resource conditions and visitor experiences should be achieved and maintained over time (desired conditions). The general management plan looks years into the future when dealing with the framework of natural and cultural processes, considering the park holistically in its full ecological and cultural context and as part of a surrounding region. Site-specific planning will be done in later implementation plans.

There are two broad **purposes for a general management plan**:

- Clearly describe the desired conditions, the specific resource conditions and visitor experiences to be achieved in a park, and identify the kinds of management, use, and development that will be appropriate in achieving and maintaining those conditions.
- Ensure that this basic foundation for decision making has been developed in consultation with interested stakeholders and adopted by the National Park Service (NPS) leadership after an adequate analysis of the benefits, environmental impacts, and economic costs of alternative courses of action.

A **general management plan needs to do two things**:

(1) Clarify and articulatewhat must be achieved in the park — These requirements are based on the park's purpose, significance, special mandates, agreements, and the body of laws and policies directing the management of the national park system.

Park management is directed by law, policy, and plans — in that order. Law and policy deal with *musts* — things that must happen in the park because they have been mandated by Congress or the NPS leadership. Park managers and staffs do not make decisions about laws and policies; they simply implement them.

(2) Make decisions about the most appropriate mix of desired conditions that have been identified for a park — These desired conditions may be identified by the park staff, technical experts, current and potential visitors, other agencies, traditional users, regional/area residents, and the general public.

Laws and policies as well as the park's purpose, significance, and mission are the sideboards for determining which of the suggested desired conditions can be legitimately considered.

Planning provides the process for choosing among the desired conditions. The desired conditions are grouped appropriately by concept and expressed as different alternatives. In other words, various approaches to protecting the park's resources and allowing visitor use and development may be possible. These different approaches are called the alternatives, and the alternatives are described by establishing management zones that tell what specific conditions and visitor experiences will be achieved and maintained in each particular area of the park over time. The size and

placement of the different management zones usually varies in each alternative. Determining the best mix of desired conditions (i.e., the best alternative) is the point of the general management planning process, and decisions are based on scientific and academic resource analysis, a rigorous evaluation of the natural, cultural, and social impacts of alternative courses of action, and consideration of long-term economic costs.

The example below is meant to simply illustrate how all that bureacratese is really applied. For the example below, we are assuming that our desired conditions are in line with laws, policies, park purpose, significance, etc.

Some people might want to double the number of people allowed out to Dry Tortugas National Park so that more people could learn about and enjoy the park and its resources (a concept/ desired condition for one alternative). Others might want to limit the number of people that go to the park to researchers only so that the park's resources would always remain in near-pristine conditions (a concept/desired condition for a second alternative). Many other concepts are possible. Once concepts are formed, then decision makers (which includes the interested public) decide what actions would have to take place in the park to support this concept. They do that by establishing management zones that describe what specific conditions and visitor experiences would be achieved and maintained in each particular area of the park over time. As shown below, the size and placement of the management zones would vary with each alternative concept.

Suppose, for example, we have a historic preservation/adaptive use management zone and a research natural area zone (among others) that the planning team, park managers, the public, and others have developed as appropriate for Dry Tortugas National Park. (Different management zones would be appropriate for different parks.) In the historic preservation / adaptive use zone we might develop many structured activities and opportunities for many visitors (primarily those on tours) to learn about the park and its resources while carefully protecting any historic structures (such as the fort). Visitors would only be allowed in the research natural area management zone with a permit. This would help ensure the protection of the park's near-pristine resources in that management zone. In the first alternative concept (double the visitors allowed), the historic preservation / adaptive use zone might encompass Garden Key/Fort Jefferson and Loggerhead Key, and the research natural area might encompass 20 square miles of the most representative of the park's near-pristine resources. In the second alternative concept above (no one but researchers), there would be no need for a historic preservation/ adaptive use zone and the research natural area zone might encompass the entire park. Although the reader will find the management zone descriptions and alternative action descriptions in this document to be more complex, this is the basic idea of general management planning.

The other "piece" that needs to be added is an analysis of the environmental consequences (impacts) of implementing each of the alternatives — including impacts on the natural and cultural resources (will the fort and the coral beds and birds be protected?), impacts on park visitors (can visitors still fish, snorkel, and dive to shipwreck sites?), and impacts on the socioeconomic environment (can commercial charter boats still take people to fish, will the ferry to the park still run, and what will the park be like in 20 years?). These and other important questions and their answers are what general management planning is all about. The method may seem a bit complex, but the goal is simple — while considering park visitors and park resources, what is the best way to manage the park for the next 15 to 20 years.

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